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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/709,712	05/24/2004	Nien-Hui Hsu	OTMP0080USA	3711
27765	7590	01/30/2006	EXAMINER	
NORTH AMERICA INTELLECTUAL PROPERTY CORPORATION P.O. BOX 506 MERRIFIELD, VA 22116			BLACKMAN, ROCHELLE ANN J	
			ART UNIT	PAPER NUMBER
			2851	

DATE MAILED: 01/30/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

**Application No.**

10/709,712

**Applicant(s)**

HSU ET AL.

**Examiner**

Rochelle Blackman

**Art Unit**

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 22 November 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☒ Claim(s) 11 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 24 May 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Response to Arguments***

Applicant's arguments with respect to claims 1, 3, and 5-11 have been considered but are moot in view of the new ground(s) of rejection.

### ***Claim Objections***

Claims 10 and 11 are objected to because of the following informalities: In claim 10, "a second air inlet" should read, - -another second air inlet- -, or - -an additional second air inlet- -, to make a distinction between the "second air inlet" that is already recited in claim 1. In claim 11, on line 3, "formed" should be - -forming- -. Appropriate correction is required.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

1. Claims 1, 3, 5-8, and 10 are rejected under 35 U.S.C. 102(b) as being anticipated by Ohishi et al. (U.S. Patent Application Publication No. 2002/0163627).

Regarding claim 1, a projection apparatus (see FIGS. 1-8), comprising: a housing (see 2 of FIGS. 1-4) having a first air inlet (see 32 and 36 of FIGS. 5 and 7) and an air

outlet (see 15, 45a of FIGS. 1-3, 8, and 10), the first air inlet positioned at a bottom surface of the housing (see location of 32 and 36 in FIG. 7), and a space (see space at bottom of the projector between legs 5 in FIGS. 3 and 9) formed between the bottom surface and a surface positioning the projection apparatus, the air outlet positioned at a side surface of the housing (see location of 15, 45a in FIGS. 1-3, 8, and 10); a partition (this is considered to be the bottom of the optical unit 49, which is 49a in FIG. 7) installed horizontally inside said housing for separating the housing into a first zone (area above 49a in FIG. 7) and a second zone (area below 49a in FIG. 7), the first air inlet being formed at the first zone and positioned under the partition (see location of 36 in FIG. 7), the air outlet being formed at the second zone (see location of 15, 45a in FIGS. 1-3, 8 and 10); a second air inlet (see 39 and 40, 49c and 49e of FIG. 7) formed between the partition and the housing; an optical engine (see 11 of FIG. 7) positioned inside the second zone; a light source (see 11a of FIG. 7) positioned inside the second zone for emitting light into the optical engine to form an image; and a fan (see 23 of FIGS. 1, 2, 6, 8, and 10) installed in the second zone for drawing air from the first air inlet and second air inlet into the second zone, the air being exhausted through the air outlet.

Regarding claim 3, Ohishi discloses wherein a guide plate (see sides forming 49c and 49e in 49a in FIG. 7) is installed at the exit of said second air inlet to guide the air to elements needed to be cooled.

Regarding claim 5, Ohishi discloses further comprising an air-guiding duct (see 22 of FIGS. 1, 2, 8, and 10-12) having one end connected to said air outlet.

Regarding claim 6, Ohishi discloses wherein the air-guiding duct has a curved air flowing path (see air flowing path in 22 in FIGS. 1, 2, 8, and 10-12).

Regarding claim 7, Ohishi discloses further comprising a baffle (see 24 in FIGS. 1-3) installed inside said air-guiding duct.

Regarding claim 8, Ohishi further comprising a plurality of printing circuit boards (see 13 and 14 of FIGS. 1, 2, and 10) forming a duct (see 27 of FIGS. 1, 2, and 10) having one end close to said second air inlet.

Regarding 10, Ohishi discloses wherein the partition has a second air inlet (see 40, 49e of FIG. 7) positioned close to the light source.

2. Claims 1, 3, 9, and 10 are rejected under 35 U.S.C. 102(b) as being anticipated by Hara et al. (U.S. Patent No. 6,398,366).

Regarding claim 1, a projection apparatus (see FIGS. 1-8), comprising: a housing (see 2 of FIGS. 1-7) having a first air inlet (see 32a of FIG. 4) and an air outlet (see 52 of FIG. 7), the first air inlet positioned at a bottom surface of the housing (see location of 32a in FIG. 4), and a space (see space at bottom of the projector between legs 3 in FIG. 4) formed between the bottom surface and a surface positioning the projection apparatus, the air outlet positioned at a side surface of the housing (see location of 52 in FIGS. 6 and 7); a partition (this is considered to be the bottom of the optical unit case 4, which is 4a in FIG. 4) installed horizontally inside said housing for separating the housing into a first zone (area above 4a in FIG. 4) and a second zone (area below 4a in FIG. 4), the first air inlet being formed at the first zone and positioned under the partition

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(see location of 32a in FIG. 4), the air outlet being formed at the second zone (see location of 52 in FIGS. 6 and 7); a second air inlet (see 22R, 22G, 22B, 38, and 39 of FIGS. 1-8) formed between the partition and the housing; an optical engine (see 5 of FIGS. 1-3, and 5) positioned inside the second zone; a light source (see 6 of 1-3 and 5-8) positioned inside the second zone for emitting light into the optical engine to form an image; and a fan (see 25 of FIGS. 1, 2, 4, and 5-7) installed in the second zone for drawing air from the first air inlet and second air inlet into the second zone, the air being exhausted through the air outlet.

Regarding claim 3, Ohishi discloses wherein a guide plate (for example, see sections of 33 extending upward from element 41 and surrounding and adjacent to "second air inlet" 39 and arrows inside "second air inlet" 39 in FIG. 5) is installed at the exit of said second air inlet to guide the air to elements needed to be cooled.

Regarding claim 9, Ohishi discloses further comprising a filter (see 40 of FIG. 4) installed at said first air inlet.

Regarding 10, Ohishi discloses wherein the partition has a second air inlet (see 39 of FIGS. 1, 2, and 5) positioned close to the light source.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ohishi et al. (U.S. Patent Application Publication No. 2002/0163627) in view of Hara et al. (U.S. Patent No. 6,398,366).

Ohishi discloses the claimed invention except for "a filter installed at said first air inlet".

Hara teaches providing a filter (see 40 of FIG. 4) installed at a first air inlet.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to install a filter at the first air let in the projection apparatus of the Ohishi reference, as taught by Hara for the purpose of preventing dust from entering the first air inlet, thus preventing the reduction of light transmittance or light reflectance of optical elements in the "projection apparatus" (see col. 8, lines 59-61, col. 14, lines 65 to col. 15, lines 16).

***Allowable Subject Matter***

1. Claim 11 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.
2. Claim 11 has been found to be allowable because the prior art of record either alone or in combination neither discloses nor makes obvious the projection apparatus comprising the particular feature of the partition having a periphery, a part of the periphery connected to the bottom of the housing and the other part of the periphery formed the second air inlet with the housing, in combination with the particular combination of features recited in claim 1.

***Conclusion***

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of



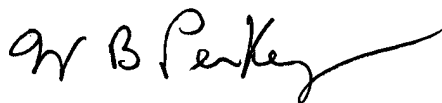
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the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Rochelle Blackman whose telephone number is (571) 272-2113. The examiner can normally be reached on M-F 8:00-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Judy Nguyen can be reached on (571) 272-2258. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



**William Perkey**  
**Primary Examiner**

RB